REMARKS

The Office Action of June 25, 2004 has been received and its contents carefully noted.

Revisions to the Application

The present Amendment revises the title to make it more descriptive, as required in section 3 of the Office Action. The new title that has been selected is "Data Transmitting And Receiving System With Speedy Re-transmission Of Missing Data, And Data Receiving Device."

The present Amendment also revises the abstract to condense it into a single paragraph and improve its idiomatic English.

In addition, the present Amendment includes a Request for Approval of Drawing Changes to Figure 1, as marked in red ink on a copy of Figure 1 attached hereto. The drawing revisions supply legends for the boxes in Figure 1.

The present Amendment also places objected-to claims 5, 8, and 9 in independent form. Accordingly, it is respectfully submitted that these claims are in condition for immediate allowance. It is noted that these claims include the language " ... transmit a plurality of split data obtained by splitting data to be transmitted ..." (see section 4 of the Office Action), but it is respectfully submitted that an ordinarily skilled person who had read the application would know what was intended, so the claim language is suitably definite.

The present Amendment also revises independent claims 1 and 11 to further define the invention, and transforms claims 12 and 15 into independent claims. The

dependent claims are also being revised where appropriate to conform to the revised language in the independent claims and to clarify the claims. Claims 7, 11, and 14 are being cancelled.

Finally, the present Amendment adds new claims 17-35 to further protect the invention.

The Rejection For Indefiniteness

The rejection for indefiniteness in section 4 of the Office Action is respectfully traversed, since an ordinarily skilled person who had read the application would be able to understand what is being claimed. At any rate, the claim language is being extensively revised. Accordingly, that rejection should be withdrawn.

The Rejection For Anticipation

Section 6 of the Office Action rejects the independent claims (along with several dependent claims) for anticipation by Japanese reference 10-228355 to Hori. For the reasons discussed below, however, it is respectfully submitted that the current versions of independent claims 1, 12, and 15 are patentable over this reference, as are new independent claims 234 and 31.

The English-language information about the Hori reference that is presented in the "Patent Abstracts of Japan" summary is somewhat difficult to follow, but further information about what the reference discloses is provided on pages 1 and 2 of the present application. Basically, the reference teaches transfer of data to a peripheral device by isochronous transfers, followed by interrupt transfers to determine whether the

data was received properly by the peripheral device. If not, it is sent again by isochronous transfer.

Independent claim 1 provides that a data transmitting device sends frames of data to a data receiving device via first transfers during corresponding time bands. Claim 1 also provides that the data transmitting device is provide with "a transmitting section which, if said data receiving device was unable to receive a given frame, transmits parts of the given frame again via second transfers during periods of time between the first transfers." This is neither disclosed nor suggested by Hori.

Independent claim 12 recites that a data transmitting device transmits frames of data to a data receiving device "periodically via first transfers and non-periodically re-transmits data from frames which said data receiving device was unable to receive normally, the re-transmissions being conducted by second transfers." Independent claim 15 is directed to a data receiving device having "a receiving section to periodically receive frames of data via first transfers and to non-periodically receive data from re-transmitted frames via second transfers." These features are not disclosed in the reference, and are not suggested by the reference, either.

New independent claim 24 is directed to a system comprising a data transmitting device that includes a data storing section and first and second tables. The data transmitting device of claim 24 also includes "a buffer section that periodically transmits the data of frames identified in the first table during first transfers and that non-periodically transfers the data of frames identified in the second table during second transfers, the non-periodic transfers of data occurring between the periodic transfers of data." New independent claim 31 is similar. In contrast, Hori transfers all of his data in

isochronous transfers, which are periodic in nature. Nothing in the reference would suggest transferring data periodically but using time available between these periodic transfers to non-periodically transfer data that was not received properly the first time.

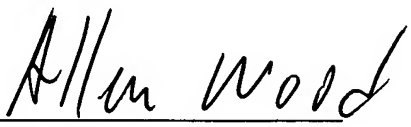
Since the remaining claims that have not yet been allowed depend from the independent claims discussed above and recite additional limitations to further define the invention, they are patentable along with their independent claims and need not be further discussed.

Conclusion

It is noted that this application has been amended to include 32 claims, eight of them independent. Accordingly, an additional claim fee of $656 is included in a remittance that is being submitted concurrently. Should this remittance be accidentally missing or insufficient, any fees that may be needed can be charged to our Deposit Account number 18-0002.

For the foregoing reasons, it is respectfully submitted that this application is now in condition for allowance. Reconsideration of the application is therefore respectfully requested.

Respectfully submitted,



Allen Wood
Registration No. 28,134
Customer No. 23995
(202) 371-8976
(202) 408-0924 (facsimile)

AW/rw

ABSTRACT OF THE DISCLOSURE

A ~~data transmitting and receiving~~ system for transmitting and receiving data between a data transmitting device such as a computer and a data receiving device such as a peripheral device ~~and~~ is ~~provided which is~~ capable of shortening the time required to complete transmission and receipt of all of the data, ~~to be transmitted in data transmission~~ including re-transmission of missed data. The data transmitting device is provided with a first transmitting section to periodically and sequentially send a plurality of split data obtained by splitting data to be transmitted to the peripheral device, and with a second transmitting section. The second transmitting section sends ~~to send~~ split data, when the data receiving device was unable to receive split data fed from the first transmitting section, to the data receiving device during a period of time between time bands in which the first transmitting section transmits the split data.